In a follow-up submission circulated in September 2018, Brazil and Argentina note that "information technology could and should facilitate access to real-time data on the use and remuneration of right holders" (WTO, 2018).

Copyright piracy and trade in counterfeit products are also of particular concern. According to the OECD and the European Union Intellectual Property Office (EUIPO), the value of imports of counterfeit and pirated goods is worth close to US\$ 500 billion a year – around 2.5 per cent of global imports – with French, Italian and US brands hit the hardest (OECD-EUIPO, 2016), and the WHO estimates that 10 to 30 per cent of medicines on sale in developing countries could be counterfeit, causing 700,000 deaths a year globally (World Health Organization, 2016).

One specificity of IP rights is that they are territorial by nature. They are granted, protected and enforced separately in different jurisdictions around the world. Rights granted in one jurisdiction are only protected and enforceable in that jurisdiction. For example, use of a patent in a jurisdiction other than the one where the patent has been granted would not necessarily be considered infringement.

Can Blockchain help to address these challenges of administration, enforcement and territoriality? The use of Blockchain in the area of IP is still relatively new, but it could open interesting opportunities. A rapidly growing ecosystem of companies is looking at how blockchain technology can be used to improve the administration and enforcement of IP rights across multiple jurisdictions. Blockchain applications are numerous and could affect both the governance of IP rights and the IP industry. Blockchain for registered and unregistered rights could arguably be used to provide proof of creation, ownership, and first use; to register IP rights; to administer and manage IP rights, including payments; and to enforce IP rights and fight counterfeits. However, while applications of blockchain technology can help alleviate some of the challenges that rights-holders face, the technology will not solve all issues.

(a) Proof of existence and ownership

Proving ownership of literary or artistic works, trademarks, patents or designs is essential if one is to claim IP protection. Yet, as already noted, determining ownership can be a challenging task, in particular in the case of copyright.

(i) Copyright

Literary or artistic works, such as drawings, paintings and literary, musical, cinematographic and photographic works, are protected the moment they have been "fixed in some material form".⁵¹ No registration is required. However, in